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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,772	02/20/2002	Stephen F. Sagan	DLP080	2689

7590 09/29/2003  
John E. Gunther  
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615 Palomar Avenue  
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EXAMINER

RAHLL, JERRY T

ART UNIT	PAPER NUMBER
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2874

DATE MAILED: 09/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<p><b>Application No.</b></p> <p>10/081,772</p>	<p><b>Applicant(s)</b></p> <p>SAGAN, STEPHEN F.</p>	
	<p><b>Examiner</b></p> <p>Jerry T Rahl</p>	<p><b>Art Unit</b></p> <p>2874</p>	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 5-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \*   c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                               | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>10-2002</u> . | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings submitted have been reviewed and determined to facilitate understanding of the invention. The drawings are accepted as submitted.

### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities: the limitations of a broadband mirror disposed on the first surface and an optical band pass filter disposed on the second surface are recited twice in claim 1. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,008,920 to Hendrix.
5. Hendrix describes an optical multiplexer/demultiplexer device having a broadband mirror (32) with a first reflective planar surface and an optical band pass filter (30) having a second reflective planar surface disposed adjacent to the broadband mirror with the second reflective surface facing the first reflective surface, where the space between the first and second reflective surfaces is filled with an optically transmissive glass block (20) and the first and second surface deviate from parallel by a small wedge angle (see Columns 11-12).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendrix as applied to claim 1 above, and further in view of U.S. Patent No. 6,292,298 to Glance.

8. Hendrix describes an optical multiplexer/demultiplexer device as discussed above. Hendrix does not describe the wedge angle between about 4 arc minutes and about 16 arc minutes.

9. Glance describes an optical multiplexer/demultiplexer device having a first reflective planar surface (200) and an optical band pass filter (200) having a second reflective planar surface disposed adjacent to the first surface with the second reflective surface facing the first reflective surface, where the space between the first and second reflective surfaces is filled with an optically transmissive glass block (100) and the first and second surface deviate from parallel by a small wedge angle of about 4 arc minutes (see Columns 2-4).

10. Hendrix and Glance are analogous art because they are from the same field of endeavor of optical multiplexing/demultiplexing. At the time of invention, it would have been obvious to one of ordinary skill in the art to use the wedge angle of Glance with the reflector setup of Hendrix for use with a channel interval similar to that described in Glance. Therefore, it would have been obvious to combine Glance with Hendrix to obtain the invention specified in claim 4.

***Allowable Subject Matter***

11. Claims 5-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 5-6 describe the broadband mirror has a third planar surface contiguous with the first surface, and deviating parallel to the second by a second wedge angle. Claim 7 describes one of the surfaces as a non-planar surface. Claims 8-12 describe a reflective optical device disposed adjacent to the optical band pass filter.

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patents Nos. 5,583,683 to Scobey, 5,290,411 to Duck et al. and 6,515,776 to Naganuma describe optical multiplexing/demultiplexing devices with reflective surfaces.

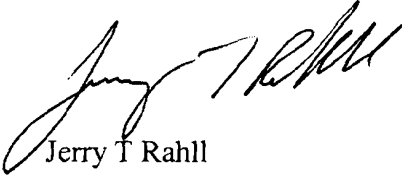
14. Prior art documents submitted by applicant in the Information Disclosure Statement filed on 21 October 2002 have all been considered and made of record (note the attached copy of form PTO-1449).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry T RahlI whose telephone number is (703) 306-0031. The examiner can normally be reached on M-F (8:00-5:30), with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (703) 308-4819. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 2874

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Jerry T Rahl



AKM ENAYET ULLAH  
PRIMARY EXAMINER